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ABSTRACT

The guide is one of a series developed in a pilot project to integrate career education concepts with traditional subject matter and topics in elementary grades K-7 and in special education. Developed by teachers in the Radford, Virginia, schools, the units make use of resource persons from outside the school, occupational information, interviewing and reporting techniques, parent and family involvement, hands-on experiences, role playing, and field trips. All units are organized in a column format which provides an introductory motivating activity with related resources and materials. The lessons are based on content questions, which are explored by specific techniques and activities and supported by resource materials in all media. Not all data on materials are complete. For the fifth grade level, the units are: agriculture, botany, Federal government, forestry, the newspaper, merchandising, the mind and body, money and banking, recreation, rocks and minerials, the telephone industry, textiles, and utilization of resources. (MDW)

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RADFORD CITY SCHOOL'S CAREER EDUCATION PROJECT
RADFORD, VIRGINIA 24141

INTRODUCTION TO ELEMENTARY CAREER EDUCATION UNITS

The Career Education Program of the Radford City Schools is a pilot project of research and development for career education techniques and materials. It is funded through a grant from the Office of Education which extends until December 14, 1974.

The unit approach was utilized to implement career education concepts on the elementary level. A total of 99 career education instructional units have been developed by the Radford teachers. These units were designed for use in grades K-7 and special education.

The units were developed around specific topics (clothing, weather, etc.) and incorporated the following elements:

1. Subject content relationships
2. Occupational information
3. Resource speakers
4. Interviews and reports
5. Parent and family involvement
6. Hands-on and other sensory experiences
7. Role playing and simulation activities
8. Career related field trips

The majority of the units contain more activities than would normally be included in a unit, therefore the teacher can select the most appropriate activities for her particular students. The length of time that should be spent on each unit is approximately four to six weeks.

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ED107890

CAREER EDUCATION PROGRAM
RADFORD CITY SCHOOLS

UNIT TITLE: THE TELEPHONE INDUSTRY

"WIRES THAT TALK"

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

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CE004001

INTRODUCTION TO: The Telephone Industry
Wires That Talk

Children at fifth grade level are normally becoming very conscious of, and curious about scientific developments and technological advancement. It is hoped that this natural curiosity, interest, and understanding can be harnessed and channeled through this unit in such a way that they will grow in concepts, skills, and appreciations.

Hopefully, the students will become aware of the fact that the telephone industry has played an important role in our society's growth, that it is an integral part of our lives now, and is continuing to contribute to future developments.

At the conclusion of the unit the children should realize that there are many and varied work roles in the telephone industry and that it may hold for them possible future employment.

MOTIVATING ACTIVITIES	RESOURCES AND MATERIALS
Why is the telephone industry important in modern society? Discussion Teacher will show pictures demonstrating the basic needs of our society and conduct oral discussion of the part the telephone plays in the satisfaction of these needs.	

BROAD OBJECTIVE: To help children become aware of the part the telephone industry plays in our society.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How does the telephone help in the satisfaction of the basic needs of our society?	List orally the basic needs of our society.	
	Make notes of all phone calls received at home one afternoon and night and classify according to needs they met.	
	Interview parents concerning kinds of calls they made during the day. What goods and services were asked for?	Parents
	Write a skit, "The Day the Telephones Went Dead." a. teacher tell first about N.Y. City's blackout. b. children discuss things that would happen.	
	Role play the above skit.	Play telephones
	Show filmstrip, "The Telephone" (Coronet)	Filmstrip: The Telephone" (Coronet) Projector
	Read poem "Eletelephony" and put to music.(Either original tune or adopt to another tune)	Childcraft Piano
	Show film-Here is Tomorrow	Film: Here is Tomorrow C&P Tele. Co.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Write telephone conversation for the following, and role-play: a. giving a grocery order b. taking a message c. calling someone for your parents. d. checking a bus schedule e. calling a schoolmate for an assignment.	Language text-Our Language Today "Writing Conversation" p. 33-34
	Teacher call out impromptu assignments for making and receiving calls and let children role-play.	Play phones
	Construct a telephone booth from a refrigerator carton. a. measure b. figure cost of materials and labor in real life.	Refrigerator carton Masking tape Cold water paint Cellophane Yardstick Big paint brushes Glue Plastipak
	List cooperatively the different areas of usage of the phone: a. personal b. business c. emergency d. information	
	Show films: Crossroad Conversations Cables Across the Chesapeake	Films: (From C&P Tele. Co.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIALS
	Work in groups and act out sample situations and telephone conversations for each category.	
	Make a list of rules of etiquette to be used in telephoning. Role play the rules of etiquette. Learn the telephone greetings around the world. Mimeograph world maps and have children locate the place of the different greetings.	Language text, Sharing Ideas- Grade 6, p. 85-87 World Book - Vol. 19
	Make a bulletin board showing the caller and string lines going through the switchboard to various areas of service. Make collages showing people served by telephone.	Bulletin board Small doll String Magazines for pictures Small thin box(1" thick)
	Make a board picture showing kinds of terrain the telephone lines cover - a. mountains b. residential areas c. shopping areas	
	Make shadow boxes showing kinds of terrain the telephone lines cover, putting in poles and wires.	Shoe boxes Construction paper Glue Crayon, string

BROAD OBJECTIVE: To develop increased understanding of the interdependence of society and the telephone industry.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How are people, places, and things in Radford and the people involved in the telephone industry dependent upon each other?	Children bring in newspaper clippings to illustrate any way the phone might have played a part in the development of events in the story.	Newspaper clippings.
	List industries in Radford and write paragraphs explaining how they use the telephone.	
	Make a telephone directory of the people in the room - a. set up printing company 1. sell advertisements 2. contract for printing 3. circulate directories 4. design cover 5. organize advertising into yellow pages.	Tagboard Typing paper White construction paper Yellow unruled paper
	Have rescue squad chief or policeman talk to children about the types of calls they get.	Chief of rescue squad or Chief of Police
	Invite telephone operator to tell about some types of long distance calls she has handled and the problems involved.	Telephone operator.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Make a model of the telephone building from cardboard boxes.	Cardboard boxes. Masking tape. Clear cellophane.
2. How does the telephone industry affect the local economy?	Bring old telephone bills from home and work with the mathematics involved in compiling the total bill.	Old telephone bills. Math text
	Make imaginary long-distance calls and figure the cost.	Play phones.
	Invite local business manager or plant manager to school to explain the various facets of the cost involved in telephone service.	Business Manager
	Write "Thank You" notes to visitor.	Stationery. Language text-p. 40, 311, 337 Our Language Today
	Original poems may be written by students on subject of telephone.	

BROAD OBJECTIVE: To promote a respectful attitude toward all kinds of work and to enable the students to identify the careers that can be considered a part of the telephone industry, recognizing the positive and negative factors in all types of work.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What different kinds of occupations are involved in the telephone industry?	Take a field trip to the telephone building to find answers to the question in the left column.	Bus and driver. Parents to accompany us.
	Take a field trip to the telephone maintenance headquarters.	
	Follow up field trip by making charts to show involvement by clusters: business, construction, transportation, manufacturing, marketing and distribution, communication, etc.	Poster board. Magic marker. Magazines Manila paper. Crayons Glue
	Learn the occupations listed in the above activity, and their spelling.	
	Read World Book on telephone "Career Opportunities", p.84D	World Book - T - p.84D
	Make pictures of workers in their work settings (Use tempera for backgrounds)	Manila paper. Study print: Tempera. Telephone man Telephone lineman
	Make a collage showing workers named above. Listen to cassettes. Show filmstrips.	Magazines Cassettes: Glue Telephone Craftsmen Manila paper Alex.Graham Bell Linemen Filmstrips: Telephone Workers Telephone Services

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Invite retired telephone operator to talk to children to compare work experiences in the past with those of the present.	Telephone operator.
	Make survey of the class as to related parental occupations.	
	Show filmstrip, "The Telephone"(Coronet)	Filmstrip: "The Telephone" by Coronet
	Invite telephone lineman into class to talk about his work and to demonstrate the equipment he uses.	Resource person-Telephone Lineman. Lineman equipment.
2. What are the advantages and disadvantages of working in the telephone industry?	Discuss the question.	
	Write paragraphs stating choice or rejection of employment in this area and give reason.	Textbook, "Our Language Today" p. 33, 108, 169, 155-159
	Make "good" and "bad" charts showing the above. (Children paste on charts)	Tag board Crayons Magic marker
	Discuss the implications of weather patterns on the industry.	
	Invite a troubleshooter into the class to describe his work, and relate it to good and bad features of his job.	Telephone Company employee (Troubleshooter)

BROAD OBJECTIVE: To help children understand the part that growth and sophistication of society have played in technological development and work roles.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What were the circumstances surrounding the invention of the telephone? Who invented it? How did he go about it?	Child read to the class during after-lunch period, "Mr. Bell Invents the Telephone" (Barbara Cox)	Book: "Mr. Bell Invents the Telephone" (Barbara Cox)
	Read and report on biographies of Alexander Graham Bell and Thomas Alva Edison.	Encyclopedias Pamphlets
	Make a model of the first telephone.	Flat board Wires Spool Nails Tin can
	Role-play the first call by Bell. Show film, "We Learn About the Telephone."	Film: "We Learn About the Telephone" (C&P Telephone Co.)
	Children read at leisure pamphlets on reading table.	All printed material available.
2. What conditions have brought about changes and improvement of telephone services and equipment?	Trace westward movement on map and relate to problem.	U.S. map Social Studies text "Living in the America's" (Index under Pioneers)
	Discuss international trade and how that caused need for improved telephone communication.	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Study pamphlet, "The Telephone in America"(Barbara Cox)	Pamphlet, "The Telephone in America"
	List groups of people who use telephone for long distance calling.	
	Use wall charts "Communications Prologue to Tomorrow".	Wall charts "Communications Prologue to Tomorrow". (C&P Telephone Company)
	List as many modern advances as possible which incorporate telephone technology. a. television & radio b. space program c. satellites d. teletype e. defense(the hot line)	
3. What are the changes which have been made in telephone equipment and service?	Read and report on Trans-Atlantic cable.	Encyclopedias
	Make large diagram of simple telephone circuit.	Golden Book Encyclopedia. Book: What Makes a Telephone Work
	Examine and compare a. crank phone b. conventional phone c. modern dial phone d. push-button phone	Crank phone-Buck Sutphin Conventional phone-K. Wilson Modern dial phone-C&P Tele. Co. Push-button phone-C&P Tele. Co.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Draw pictures showing improvements in the telephone from 1876 to 1972. Display these. Show color film, "Party Line".	 Film: "Party Line".

BROAD OBJECTIVE: To increase understanding of and appreciation for the technical skills needed in the various phases of the telephone industry.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What makes a telephone work?	Read and report on "How the Telephone Work ".	Compton's Encyclopedia
	Make phone with tin cans and string and demonstrate usage.	Tin cans String Nails
	Demonstrate sound waves with pebble in water.	Bucket Water Pebble
	Tear apart a piece of coaxial cable and examine contents.	Coaxial cable.
	Discuss wire insulation and relate to safety.	Piece of telephone wire.
	Examine phone wire.	Piece of telephone wire.
	Show film, "The Wonder of the Telephone".	Film: "The Wonder of the Telephone"-Eye Gate House 4SD
	Read pamphlet, We Learn About the Telephone.	Pamphlet: We Learn About the Telephone(one per child) C&P Telephone Company
	Read pamphlet, The Magic of Your Telephone.	Pamphlet: The Magic of Your Telephone(Sandy Davidson)

BROAD OBJECTIVE: To keep before the children things which will foster and keep alive their interest and enthusiasm for this unit.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Make bulletin boards and wall displays with flat materials. Exhibit manipulative materials. Set up a reading table with all available books, pamphlets, etc.	

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Make a cooperating class booklet showing all people connected with the telephone industry. 1. Children draw assignment for one occupation. 2. One page to each child. 3. Page to illustrate and describe work role. 4. Group to design and make the cover.	Large piece of cardboard. Cold water paint. Masking tape. Newsprint. Magic markers. Rings to put together booklet.

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Wilkinson, Jean. Come to Work with us in a Telephone Company. Children's, 1971.
Zim, Herbert S. Telephone Systems. Morrow, 1971.

2. Pamphlets:

Bell Telephone Co. The Magic of Your Telephone
C&P Telephone Company. Ten Men and the Telephone
C&P Telephone Company. We Learn About the Telephone

3. Charts:

C&P Telephone Company. Communications Prologue to Tomorrow

4. Filmstrips:

Telephone Workers. (Wonderful World of Work series,4-6) Denoyer-Geppert, 1969.
The Telephone. Coronet

5. Tapes:

C&P Telephone Company. Your Voice is You

6. Films:

C&P Telephone Company. Cables Across the Atlantic
Crossroad Conversations
Here Is Tomorrow
We Learn About the Telephone
Eye Gate House. The Wonder of the Telephone
State Film Library. Adventures in Telezonia

7. Single Cassettes:

A Message From Hearts Content/Aleck Bell Calls a Friend. (Development of Communication series) SVE, 1971.
American Occupations Series: Telephone Craftsman/Telephone Equipment Installer.
Lineman - Cable Splicer.
Telephone Repair - Installer.
World's Great Inventors Series; Educational Sensory Programming. Alexander G. Bell.

8. Study Prints:

Modern Workers - Set 1 - Instructo Publishing. (Telephone Lineman)
Child's World. People Who Come to My House. (Telephone Man)
Standard Publishing Company. Community Helpers. Picture Packet. (Telephone Man).

9. Encyclopedias and Reference Books:

Book of Popular Science - Vol. 2
Childcraft - Vol. 1
Compton's - Vol. 22
Golden Book Encyclopedia - Books 13 and 14
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Young People's Science Encyclopedia - Vol. 18

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: MONEY AND BANKING

"THE MONEY GOES ROUND AND ROUND"

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

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INTRODUCTION TO: Money and Banking
The Money Goes Round and Round

The affluency of our modern society seems to be channeling children into an unhealthy disregard for the value of money and the many agencies involved in its creation and distribution.

This unit should bridge some of the gaps in their understandings about the world of money, and the many and varied people whose work world revolves around money and banks. It should also help the students build good spending and saving habits. There should be a definite carry-over into their present and future lives.

BROAD OBJECTIVE: To help children become interested in a study of money and banking.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What do we know about money and banking?	Read together orally and discuss the pamphlet, A Visit to the Bank.	Pamphlet, A Visit to the Bank.(in Career Ed. library)
	Child "secretary" list on the board key words from the story as the children identify them.	
	Students start individual word lists for recognition, meaning, and spelling.(These words should become a part of their vocabulary)	
	Children help compile a list of things they would like to know more about on this subject.	Tagboard, 12"x18"
	Show film "It's Only Money"	F.D.I.C., Washington, D. C.

BROAD OBJECTIVE: To help children understand more about the many facets of the minting, printing, handling, and distribution of money.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What is money?	Children show and count any money they might have with them and announce to the class.	
	Let other children guess which pieces of money were used to total the amount stated.	
	Show examples of each different coin and a bill, and talk about differences in their exchange value, and also of the differences in the materials in them.	Encyclopedias Tagboard
	a. one group use encyclopedias b. one group make charts showing examples of what each piece will buy and what change would be received.	
	Make written reports on the origin of money and the changes that have been made in the kinds of money used through the ages. (Group)(To be read to class)	Encyclopedias Pamphlet: Know Your Money p. 4 and 5 (in teacher's folder)
	Show film, The Nature of Money(Group)	Film: The Nature of Money U17001 Eye Gate

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	One student read pamphlet, Let's Learn Money, to the class. (p.4-8"What is Money?")	Pamphlet: Let's Learn Money (Virginia Banker's Assoc.)
	Through cooperative effort compile a definition of money.	
	Make poster "Money Through the Years."	Poster Board Encyclopedias Pamphlet: Know Your Money Steck Workbook(p. 4 and 5) Teacher's folder. New Journeys in Reading-p. 17,18.
	Make play money(use real money for patterns).	Math text, Mathematics 5 (p. 232)
	Study pamphlet, Know Your Money(p.6) to find characteristics of paper currency.	Pamphlet: Know Your Money Library book: Coins and Currency
	Discuss counterfeiting.	
	Use encyclopedias to find ingredients in coins.	Coinometry(in library)
	Children bring in coin collections for display.	Books on coin collecting in the library.
	Invite Paul Simpkins to bring his coin collection and talk to class about it.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children bring in foreign money.	
	Make world map and paste the foreign coins on their homelands.	Newsprint Magic marker Library book: Coins and Currency.
	Make large models of different kinds of money to be displayed over blackboard.(Draw to scale.)	
	Teacher show bills of different denominations (or pictures of large bills)and have children write and learn the names of the people on the bills.	Pamphlet: Know Your Money (p.11)
	Children give oral reports on the making of money.	Encyclopedias Library Books: Let's Go to the U.S. Mint Nails to Nickels
	Teacher, or superior reader, read story to class, "What is Money and Where Does it Come From" in magazine, Children's Day(No.13) in library.	
	Work problems about money.	Text: Mathematics 5 (p. 232,233)

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
2. How is money used?	Children ask parents about the uses of money in the home; "What does money buy for us?" "What can we not buy with money?"	
	Make a bulletin board, centered with the caption, "The Uses of Money" with strings going to cut out pictures.	
	Teacher make bulletin board titled, "Uses of Money" with cardboard strips labeled: a. as a medium of exchange b. as a yardstick of value c. as a store of value d. as a standard for debts	Pamphlet: Let's Learn Money (p.8) Cardboard
	Children talk about and try to analyze each use(with teacher help in the analysis).	
	Show film, Money and Its Uses. (This must be ordered early)	Film: Money and Its Uses (Virginia Banker's Assoc.)
	Role play, "The Journey of a Dollar" after discussing it. a. from the Federal Bureau of Engraving & Printing to the consumer. b. from a consumer of one service through many other services.	
	Learn song "That's Where My Money Goes".	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. How does the bank become the center of money distribution?	Children will interview parents to find out how the bank plays a part in their lives. Children tell of their experiences in banks. Children tell about their bank accounts and how they have helped them grow - a. jobs b. allowances c. gifts Examine pamphlet, A Visit to the Bank. Plan for field trip to a local bank: a. children compile list of things they would like to look for. b. teacher add to their list. to observe the overall operation, the workers, the teller's window (for future use) Visit the bank.	Pamphlet: A Visit to the Bank Field trip to bank Books: At the Bank Let's Go to the Bank

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children make lists of jobs observed(to be kept for future use)	
	Write an account of the visit to the bank to be used in the school newspaper.	
	Read "What Is A Bank?" in pamphlet, Let's Learn Money.	Pamphlet: Let's Learn Money
	Show filmstrip, It's All Mine	Filmstrip: It's All Mine (Virginia Banker's Assoc.)
	Follow up of filmstrip should include discussion and list of jobs and services shown.	
	Add to the above list using pamphlets, Let's Learn Money and Using Bank Services(p.6)	Pamphlets: Let's Learn Money (Virginia Banker's Assoc.) Using Bank Services (American Banker's Assoc.)
	Group of children interview a bank officer to find what these services mean.(Tape the interview)	Tape recorder and tape
	Add to the list of words for vocabulary usage and spelling.	
	Make a bank teller's window from a refrigerator carton.	Refrigerator carton Masking tape Brushes Tempera paint Table

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	One child make a master copy of a page in a checkbook (stub and check)using a real book for a pattern. Teacher(?)mimeograph checks. Children make checkbooks by stapling pages together. Children work math problems using check books.	Checkbook

BROAD OBJECTIVE: To help make children become aware of available job opportunities in the banking business.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are the work roles associated with banking and how does banking play a part in community life?	Read in New Journeys in Reading(Steck)-The Beginning of Banks.	Workbook: Journeys in Reading (Steck)
	Refer to previously compiled list of workers and add to this list.	Teacher's list of workers — Bank officers Machine operators Cashiers Credit collectors File clerks Guards, watchmen Key punch operators Tellers Clerks Bookkeeper Typist Stenographer Trust officer
	Make a bulletin board (centered with picture of a local bank)to show many industries and businesses which use its services(using any object, picture, etc. which would be indicative of the industry or business).	S.R.A. Occupational Briefs
	Show film, A Banking Career.	Film: A Banking Career (Virginia Banker's Assoc.)

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Discuss the film with emphasis on the training necessary for the various careers.	
	Invite any parent who is a bank employee to visit the class and talk about some of the problems that arise in a bank.	Resource person - bank employee.
	Role play, "Going to the Bank." a. enact different reasons for the visit. b. children observe and discuss which worker would be involved.	
	Assign the learning of at least ten different jobs associated with banking.	
	Children will work in groups reading and studying "Occupational Briefs" connected with Banking and report to class.	SRA Occupational Briefs

BROAD OBJECTIVE: To help children develop constructive attitudes about the use of money.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How do people get their money and why do some people have more money than others?	Discuss the question to point out the merits of honest labor and thrift. Work out a budget, cooperatively, for a weekly allowance of one dollar. Do math computations here. Let children compare their spending with the budget. Interview parents to determine the items which have to be included in family spending. Teacher read to class, "What Is Saving?" from pamphlet, Let's Learn Money.(p.29-34) Plan together for role playing experiences(earning, banking, saving, checking, and paying). a. Explain payment for tasks completed in the room(clean-up, board, books, materials, assignments, etc.) Play checks will be used for this and payment will be made on Monday morning for previous week's work. Decide on pay scale.	Pamphlet: Let's Learn Money

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	b. Children discuss and decide on job roles necessary for this project(timekeeper, payroll clerk) c. Children role play interviewing the room chairman for these jobs. d. Set up plan for depositing checks and drawing out money to pay for such things as borrowed paper or pencil, undone assignments, messy desks.(The bank teller's cage will be used here. Real deposit slips will also be used.) e. Explain that end-of-week savings will enable the child to buy special privileges. Carry out the above activities. Make purses from leather. (Mr. Dunn will help with this.)	Leather and leather-making tools.

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Why are banks and the money they handle so important to us? Visit the branch bank on Ingles Street. Discuss the similarities and differences in the two banks visited, and decide the reasons for these differences. Write lyrics to the melody of "The Music Goes Round and Round" using the money concept for the words.	Field trip to bank.

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American Bankers Association - Using Bank Services
U. S. Secret Service - Know Your Money
Virginia Banker's Association - A Visit to the Bank
Virginia Banker's Association - Let's Learn Money

3. Encyclopedias:

World Book - Vol. 2 and 13
Compton's - Vol. 2 and 14
Golden Book Encyclopedia - Vol. 9 and 16
New Book of Knowledge - Vol. 2 and 13

4. Films:

Eye Gate - The Nature of Money
F.D.I.C. - It's Only Money
Virginia Banker's Association - A Banking Career
Virginia Banker's Association - Money and Its Uses

5. Filmstrips:

It's All Mine. Virginia Banker's Association
Money, Checks, and Banks series. Eye GAte, 1970.
How to Use Your Checkbook. (Occupational Education series)
Eye Gate, 1959.
My Mother Works In a Bank. (Mothers Work, Too series)
Churchill Films, 1968.

6. Single Cassettes:

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Educational Sensory Programming.
Getting to Know the Bank. Troll Associates, 1971.

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: AGRICULTURE - THE GOOD EARTH

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

THE CAREER EDUCATION PROGRAM
THE RADFORD CITY SCHOOLS
1612 WADSWORTH STREET
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PHONE: 1-703-639-6673

INTRODUCTION:

Since Radford is in the midst of an agricultural area it opens many avenues of future employment for these children. It is desirable that they gain an understanding of the problems of farmers, and the dignity and importance of their jobs to our American way of life.

BROAD OBJECTIVES:

1. To help children grow in appreciation for the dignity and the beauty which accompany the drudgery of working in the soil.

2. To help children become aware of the problems of the farmer.

3. To help children develop an understanding of the economic situation involved in farming and the effect of farming on the economic status of the consumer.

4. To help children discover the many careers directly involved in, and related to agricultural pursuits and to understand the reasons for the choices.

5. To guide children into an evaluation of farming as a way of life and to recognize desirable characteristics of a person who chooses farming as a career.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
MOTIVATING ACTIVITY	Show filmstrips of general farming. or Make a frieze showing the various phases of farming. or Visit a farm.	
1. What are the careers available in the field of agriculture?	Teacher prepare a reading table. Discuss careers observed in filmstrips. Children make individual lists of careers. Start a vocabulary list. (Meaning and spelling) Collect pictures and make a bulletin board showing careers. (Teacher title bulletin board) Start a class scrapbook to be continued throughout the unit.	
2. What does farming involve?	Visit a farm.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children draw pictures of what they saw on the farm.	
	Write stories "A Day on the Farm".	
	Interview members of the family who have lived on a farm and report orally to class.	
	Write thank-you notes to owner of farm visited.	
	Study Occupational Briefs on farm-related careers.	
	Learn songs about farming. "Boll Weevil" "Oh, What A Beautiful Morning"	Music teacher teach songs: "Boll Weevil" "Oh, What A Beautiful Morning" "Whistle While You Work" "Swannee River"
	Use filmstrip.	FA31 - Agriculture in Virginia
3. What are the problems of farmers?	Read in text.	Text, The Social Sciences Mountain Farm - p. 121-p.129 A Dry Region - p. 131 - p.141
	Discuss ideas brought out in text.	
	Invite county agent to talk to class about problems of farming.	Mr. Terry Altizer, County Agent, Montgomery County

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Divide class into groups to role play various problems.	
	Make a display of farm machinery using a variety of techniques and materials.	
4. how does farming affect us?	Bring from home a display of products related to farming.	
	Groups make charts showing relationship of farming in relation to satisfaction of basic needs (food, clothing, shelter).	
	Interview parents concerning prices of commodities as compared with past prices, and bring report to class.	
	Invite grocer to discuss changes in prices and reasons for the changes.	Mr. Ted Bess Mr. Clyde Burcham Mr. Frank Harkrader
	Children make story problems with above information and solve.	
5. Why would you choose farming as a career?	Invite farmer to come into classroom and discuss the good and bad in farming.	A. B. Hylton, Montgomery County

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children write character sketches about themselves and read to class. Class evaluate the sketch and discuss individual's adaptability to farming. Some children write and perform "The Good and the Bad About Farming".	
CULMINATING ACTIVITY	Make a roll box showing: a. careers in farming b. types of farming	Pasteboard box Long strip of paper Crayons Pencils Scissors Glue

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: BOTANY - THE WORLD OF PLANTS

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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BROAD OBJECTIVES:

1. To help children to develop an appreciation for the beauty of plants and to gain knowledge of the fundamental feature of plant behavior, through the study of botany.

2. To help children to understand that botany is an important tool in many professions such as forestry, horticulture, plant breeding, soil conservation and bacteriology.

3. To help children to develop an understanding of the ways that plants effect our lives economically.

4. To help children to be aware of our dependence upon plants as a way of life.

5. To guide children into an evaluation of botany related careers so they will recognize desirable characteristics of a person who chooses any of the fields of botany.

INTRODUCTION:

This unit should give the children a better understanding about the world of plants, and also the many and varied people whose work involved plants and plant products.

Hopefully the students will become aware of how our lives depend upon plants and that they effect our lives economically.

It is desirable that during this unit the students will have a better understanding of the structure and function of plants. Also the study should open new avenues of exploration and experience in the world of work.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
MOTIVATING ACTIVITIES	Discuss the term "botany" Bulletin Board: How Do Plants Function? Have examples of different kinds of plants. Let children identify them.	SRA Occupational Brief Plants.
1. What is the function of the stem of a plant?	Read and discuss page 161. Experiment: Showing how stems carry water from the roots to the leaves. Place a stalk of celery in red food coloring water. Make a drawing to illustrate. Children make a collection of different kinds of stems, so they can observe the structure.	Inquiring into Science. Transparent - Plants. Filmstrip: How Plants Live Introduction to Plants. Resource person - Biology Professor Jack Clark White construction paper. Crayons.
2. What is the function of the roots of a plant?	Read and discuss page 160. Let children plant bean seeds on a soaked paper towel, when seeds germinate they can observe the roots.	Inquiring into Science. Magnifying glass.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children make a root collection, identify and label. (From growing plants.)	Chart.
	Display examples of roots that children bring in from home. Examples: beets, carrots, radish, etc.	
	Resource person.	Dr. Clark, Radford College
3. What is the function of the leaf?	Read, study and discuss text p. 237-238 to gain information about how a plant manufactures food in the leaves.	Text: Concepts in Science V
	Discuss the process of photosynthesis.	
	Use a filmstrip.	Filmstrips: Many Kinds of Leaves. Plant Factory.
	Let children make a drawing illustrating photosynthesis.	White construction paper Crayons
	Make a leaf print. Mount on construction paper, using different colors.	Construction paper, glue
4. What is the function of a flower?	Read and discuss p. 165.	Inquiring into Science
	Make a chart showing the parts of a flower.	Filmstrip: Parts of a Flower

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
		Filmloops: Many Kinds of Flowers. What is a Flower?
	Children look at the parts of a flower by using a microscope.	Microscope.
	Have children to make a flower model by using clay, colored toothpicks, gumdrops, cardboard center from a roll of paper toweling.	Clay Colored toothpicks Gumdrops Paper toweling
	Start a scrapbook to be continued throughout the unit.	Poster board Large rings
	Start a vocabulary list. Spelling and Understanding of words. Display on wall.	Chart
	Resource person.	Person from a greenhouse. Garden Club member - Miss Cardwell
5. What are some conditions for plant growth?	Make a list and discuss conditions.	Filmstrip Flannel Board - Study of Plant Growth.
	Grow several kinds of plants in room under different growing conditions. Keep a record as to how the plants respond to sunlight, temperature and moisture.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
6. What are some plant geography areas of the United States?	Use a large relief map. Locate the different areas.	Relief Map.
	Give each child a mimeographed map to fill in the areas.	Mimeograph map.
7. How would the plant geographic areas effect the careers of the people living in a certain area?	Discuss with children some of the careers that would involve botany in these areas.	
	Start a list of different types of careers that would be offered in botany.	
	Make a chart, hang on the wall. Collect pictures for chart that would represent a career.	Chart Pictures
	Do research on different careers that would involve plants, children can report findings to class.	Filmstrip - Picking Fruits.
	Children interview parents concerning jobs related to the unit. Report to group.	Filmstrips: My Dad Is A Carpenter. My Dad Works In A Super-Market.
	Children make a collection of materials that have derived from plants, use as an exhibit in room.	Filmstrip: Plants We Use Its the Growing Thing

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Make an additional list of things that you would like to learn about jobs that concern botany. "I'd Like To Know" Set up a bulletin board showing some of the jobs that were listed on the job chart. Each child make a booklet, use one page for each job. Page would include information about job, pictures and then the childs evaluation about the job.	
8. What are some products that would involve plants?	Discuss - make a list of products.	Filmstrips: Cotton Making Maple Syrup Coal Mine
9. What jobs would involve fibers, wood products, wood derivatives and latex?	Form groups to work on each product group. Discuss, do research, collect or draw pictures and report to group. Make a frieze that would have different products a[illegible]ictures illustrating products an[illegible] tures showing the kind of job that was necessary to make the products.	Filmstrip - Lumber Mill Field trip - Furniture Factory Resource person - Chemist

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Discuss how products from plants effect our lives economically. Compare prices from a year ago.	Field trip - Grocery Store.
10. What careers are in the field of forestry and conservation?	Discuss. List careers that sould be offered in either. Do research. Report to class.	Filmstrip.
11. What is the future of jobs that are necessary in producing products from plants?	Do research by looking in newspapers, magazines, T V and re-	Newspapers, magazines, resource person, filmstrip.
CULMINATING ACTIVITIES	Let the children make own bulletin board, using the materials they have collected during the unit. Explain to class. Class present scrapbook. Different children explain one page. Filmstrip.	

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: THE WONDERFUL WORLD OF TEXTILES

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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INTRODUCTION TO: The Wonderful World of Textiles

Many parents of the children attending Kuhn Barnett School are employed in factories which are related to textiles; consequently, the students are interested in this topic, though they have not categorized them as such.

Also, in grade five the social studies emphasis is centered around life in the Americas. An important facet of this study is the part the textile industry plays in the economic structure with attention focused on the reasons for its importance as it is related to climate, geographical features, population, and technological development.

It is desirable that, during this unit, the students will grow in understanding of the textile industry and its role in our progressive society. Also, the study should open new avenues of exploration and experience in the world of work.

MOTIVATING ACTIVITIES	RESOURCES AND MATERIALS
What do we mean by the term "textiles?" Examine equipment and materials in the classroom to discover use made of textiles. Discuss different materials in clothing worn by the students and identify as textiles or non-textiles. Discuss differences in these materials to discover the meaning of the term "textiles." Formulate a definition and compare with the dictionary.	Dictionary

BROAD OBJECTIVE: To help children understand the importance of geographical location on industrial growth and development of textiles in the southeastern states.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. Why has the textile industry grown in the southeastern states? (Make maps showing areas of growth of natural & textile materials, textile manufacturer, and production of man-made fibers.)	Read and discuss Farming in the Southeast.	Social Studies text - Living in the Americas, p. 208-213
	Make a products map of the southeast states showing the areas where plants and animals are grown for textile use.	Manilla paper - 9"x12". Materials brought from home. Magic markers.
	Learn to spell words such as southeastern states, the names of the states, textiles, climate, industry, growth, depend.	
2. In what other areas of the Americas is the textile industry important? Why?	Discuss ways of finding the answer to this question.	
	Follow up above activity by using the sources mentioned and making notes of books, encyclopedias, text, etc.	Library Encyclopedias Card catalogue Text
	Study the climate maps of these areas(text).	Text
	Draw pictures showing the various means of transportation which are indicated in different situations(display these).	Manilla paper - 9"x12". Crayons

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. How was the textile industry initiated in this country? How and why has it grown?	Read in pamphlet, The Wonderful World of Textiles and Textiles in American History. View filmstrip. Use transparency 859, "Development of a Southern Plantation." Show filmstrip. Learn to spell words associated with the plantation. Make movie of: (1) Steps in early production of cotton. (2) Life on a plantation (3) Trip to Viscose (4) Textiles in use today Write an outline of a day on the plantation. Role play, "A Day on the Plantation."	Pamphlet: The Wonderful World of Textiles Filmstrip: Textiles: Measure of Civilization Transparency 859 Overhead projector Filmstrip: The Story of Cotton 204-1, SVE Broom handles Box Wrapping paper Drawings Glue

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Learn, "The Virginia Reel."	Record: The Virginia Reel.
	Show filmstrip, The Story of Wool 204-2	Filmstrip: The Story of Wool 204-2 (Society for Visual Education)
	Bring in raw wool a. wash b. card wool c. twist into fibers	Wool card Wool
4. What products are created in the textile industry and what materials are used in creating them?	Read World Book Encyclopedia T-p.173	World Book - T
	Make wall chart naming textiles.	Poster paper
	Children bring samples of all available fabrics from home.	
	Consult encyclopedia to find materials used in each fabric.	Encyclopedia
	Make a bulletin board of swatches which children have brought from home. a. label swatch and list materials used. b. supplement with teacher's cards. c. center the board with the sample card from Amer. Text. Man. Inst.kit.	Teacher's fabric sample cards(in folder) Swatch card from American Textile Manufacturer's Institute kit.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Working in groups, make charts of manmade and natural(plants, animals)fabrics.	Encyclopedias
	Test fabrics.	World Book - T - p.173
	Collect samples of fabrics with design. a. talk about these b. identify the geometric patterns.	
	Cut designs from construction paper and mount to show geometric or other designs in textiles.	Colored construction paper, scissors, glue
	Make designs on cotton fabric with potato prints (6"x9")	Potatoes Cotton cloth Tempera paint
	Tie and dye cotton cloth or children's old T shirts.	Dye Pans Cotton cloth
	Tissue paper collages showing types of design.	Tissue paper and glue
	Mount on tag board the potato designs for wall hangings.	Wooden framing Cardboard, screws, string
	Sandpaper designs showing texture.	Sandpaper and crayons
	Exhibit cotton ball and examine under microscope.	Cotton ball Microscope
	Children find costs of various materials by yard.(Compare and compute cost of given amount.)	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Invite a sheep grower into the class or have a child interview a sheep grower and report to the class.(Make pictures, if possible.) Field trip to see sheep being sheared.	Camera Film

BROAD OBJECTIVE: To help children recognize the importance of the textile industry as basic and essential to the American way of life. To help children appreciate the accomplishments of the industry in creating products that have raised our standard of living by lightening our labor and contributing to our convenienee and leisure.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are the uses of textiles?	Children survey their homes and make lists of textiles they can find in the homes.	
	Use pamphlet, Cotton to find the uses of cotton.	Pamphlet: Cotton
	List cooperatively all the uses of textiles.	Fabric charts Encyclopedias
	Make a frieze, using magazine pictures to show uses of textiles.	Magazines Wrapping paper Glue
	Read and report on biography of Eli Whitney.	Encyclopedias
	Show film, Eli Whitney.	Film: Eli Whitney - 47208 Radford
	Examine and discuss big chart on cotton, then display chart.	Chart: Cotton (in folder)
	Write stories telling how various textiles would be used in: a. a trip to the moon. b. our vacation at the beach.	
	Work in gps.; make collages showing people served by tex.ind.	Magazines,mtg.paper,glue,scissors

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	c. we go sleigh riding. d. our country's defense. e. we move into a new home.	
2. How is our standard of living affected by the textile industry?	Use the list, compiled earlier of textiles in the home and discuss the work that would be entailed if we did not have them.	
	List recreational uses of textiles.	
	Interview mothers(or have one come to the class)to find out how their work load has been lightened by the textile industry.	Resource persons - mothers
	Compare a day at home now with the previously written account of a day on the plantation.	
	Dress dolls to show the different clothing styles and textures for different climates.	Dolls Needle Thread Materials
	Read text, Living in the Americas to find answers to questions about plantation life: p. 141-144 p. 149-151 p. 208-209	Text: Living in the Americas

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Invite a home economics teacher to talk about the versatility and importance of new textiles in clothing and home furnishings.	Home Economics teacher

BROAD OBJECTIVE: To help children discover that most of the goods we buy are produced in factories and to discover some characteristics of factory production.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What part have technological and scientific developments played in the growth of the industry?	Visit Kenrose or Shirt Factory. Write paragraphs about different phases of the trip. Figure cost of trip-gas, driver, etc. Write letters of thanks to places visited & to resource people.	Field trip to textile industry.
	Write an account of the process in the mill.	
	List workers observed along the route of the tour.	
	Bring in a parent to describe his or her work in the mill and to discuss the negative and positive features.	Parent
	Weave mats on looms made in class from cigar box lids.	Cigar boxes Yarn Curtain rings
	Demonstrate advantages of assembly line production over individual production of whole product with paper weaving: a. measure paper and label b. cut paper c. measure strips d. cut strips e. weave f. trim g. glue edges	Pamphlet: The Wonderful New World of Textiles

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Read and discuss mimeographed teacher-prepared list of characteristics of factory production.	
2. What occupations are involved in the textile industry?	Children make individual lists and explain the role of various workers. Group make cooperative list based on the individual lists. Children choose the jobs they think they would like(but do not tell of choice). Write riddles to go with the choice and let other children guess or role-play the part and let the other children guess. Role-play job interviews and let the children decide which applicants would be employed. Write limericks about jobs. Children will read and report on jobs connected with the industry.	SRA Occupational Briefs

BROAD OBJECTIVE: To help children learn how the textile industry uses the discoveries of science for present and future improvement of textiles.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What scientific developments and inventions have influenced the textile industry?	Set up a display of tools and equipment used in early weaving (if these cannot be obtained, use pictures in folder on Colonial Life).	Tools
	Read and report on biographies of: a. Sir Richard Arkwright b. Samuel Compton c. James Hargraves d. Samuel Slater	Encyclopedias
	Invite chemist, Dr. Preston Durrill(at Radford College) to speak to class on the part chemistry has played in textile improvements.	Dr. Preston Durrill-Radford College

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Invite the parents to attend a class display of their unit activities-stories, bulletin boards, charts, weaving, etc. Show pictures in the ATMI Kit on the opaque projector. Students will give explanations of each picture as it is shown. (1) Groups gather all work and display, describing each. (2) Reports on different aspects of types of jobs available in industry studied. (3) Reports on people responsible for industrial inventions and improvements. (4) Various art work to display showing texture, design, etc. (5) Other reports(from volunteers) dealing with advantages and disadvantages of various jobs. ALTERNATE: Make individual booklets of work on unit, and display these in room. a. Children write short reports to be distributed to all for inc. in booklet. b. Children make master copies for duplicating. (1) what materials are used in creating textiles? (2) where in the Americas & other countries is the industry important? (3) what products are created in the industry? (4) tests for fabrics	Opaque projector Textile Teaching Kit Education Department American Textile Manufacturers Inst., Inc. 1501 Johnson Building Charlotte, North Carolina 28202

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3. Films:

Eli Whitney - 47208 - Radford Film Library

4. Charts:

Cotton - National Cotton Council of America-Memphis

5. Kit:

Textile Teaching Kit - American Textile Manufacturing Institute
Education Department
Charlotte, North Carolina

Occupational Briefs - Science Research Associates

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Compton's - Vol. 22
Golden Book Encyclopedia-Books 13 and 14
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World Book-Vol. 19
Young People's Science Encyclopedia-Vol. 18

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Textiles for You and How They Are Made.
American Textiles Manufacturing Institute.
Wonderful World of Textiles.
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Wool
National Cotton Council of America.
Cotton

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: FEDERAL GOVERNMENT

UNCLE SAMMY CAME TO TOWN

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

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INTRODUCTION TO: FEDERAL GOVERNMENT - UNCLE SAMMY CAME TO TOWN

Children at this level need to feel a strong sense of patriotism and a responsibility to our government. Hopefully, in this unit they will develop a background of information, a feel for their individual obligations, and understanding and appreciation of our democratic way of life. They should become aware of their individual freedoms and rights provided by our government.

OBJECTIVES:

1. To help children become aware of the many facets involved in the organization of the Federal Government.

2. To guide children into an understanding of the individual freedoms enjoued by citizens and the corresponding responsibilities involved under our form of government.

3. To help children understand and appreciate all the Federal Government does for us.

4. To develop an awareness of the career possibilities within the framework of the Federal Government.

5. To help children become aware of the relationship between the Federal Government and our economic situation, and the way it affects our way of living.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
Motivating Activities	1. Display U.S. Flag. Talk about its history and meaning. Bulletin board.	Vertical File (The United States Flag)
	2. Pledge to the Flag and analyze.	Red Skelton, Analysis
	3. Teach patriotic songs.	Music Teacher Vertical File Patriotic Songs of America
1. What do we know about our Federal Government?	1. Discuss with children and make a cooperative list of facts.	
	2. Children find or draw pictures to accompany this and make it to a chart.	a. Long sheet of paper b. Magazines c. Scissors d. Crayons e. Glue
	3. Children interview parents for additional information or any materials they might bring.	
	4. Start a word list of new and associated words.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	5. Make a cooperative list of things they need or want to know.	
	6. Discuss sources of information to help in answering questions.	
2. Why did the need arise for a Federal Government?	1. Read text.	Text, The Social Sciences p. 209-223
	2. Role play situations of group interaction (conflict situations).	Text, p.237 Language, Text "Discovery in English" p.92-95 Text, p.212
	3. Make bulletin board showing three branches of government.	
	4. Divide class into groups to study and report on the branches of government.	Encyclopedias Any available printed material, text book, The Social Sciences. Vertical File a. American Documents
	5. Set up a system of governing within the classroom.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	6. Children and teacher establish a set of rules applicable to the classroom.	
	7. Outline branches of government.	
3. How are our lives affected by the Federal Government?	1. Bring in a resource person from city government, to tell about the city agencies which are wholly or partially controlled by the Federal Government.	a. City engineer b. City manager c. City treasurer
	2. Children make a chart illustrating learnings from resource person.	
	3. Take field trip to sewage disposal plant.	
	4. Visit a grocery store to discover government controls of food prices.	
	5. Visit civilian defense shelter at the hospital.	
	6. Build and stock a civilian defense shelter unit.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	7. Interview school personnel to discover parts played by the Federal Government in school administration.	
	8. Make collage showing ways in which individual lives are affected by the Federal Government.	
4. What are career possibilities within the framework of the Federal Government?	1. Bring in resource person from U. S. Employment Office.	Employment Office Manager
	2. Children use occupational briefs for reporting.	
	3. Make Virginia maps showing concentration of federal.	
	4. Bring in newspaper clippings about government affairs.	
5. How is our way of life affected by the Federal Government?	1. Discuss and list ways our lives are influenced by the Federal Government.	
	2. Children choose one item from above list for research and written reports.	Text, "Discovering in English" Paragraphing p. 36,37,340,341,338, 339,342-345

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
		Research p. 290,292,296,298 288, 289,286-287 Encyclopedia
	3. Make bulletin board items listed in No. 1. 4. Teacher prepare a reading table of all available printed matter. 5. Bring in resource person on pollution control.	
CULMINATING ACTIVITY	1. Make U.S. Flag with twisted crepe paper. a. Measure a flag and figure proper proportions. b. Draw flag. c. Children work in groups to paste on various parts of the flag. 2. Present class program: a. Patriotic songs. b. SPledge of Allegiance. c. Children recite rules of proper flag etiquette.	

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: MIND AND BODY

"ME AND MY SHADOW"

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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INTRODUCTION : Mind and Body
Me and My Shadow

Much of the science and health work in grade five is centered around a study of the body structure. Since children at this age level are becoming aware of their self images, and conscious of their body development, it seems good that they make a comprehensive study at this time of their mental and physical health with the ultimate aim of improving both. Such a study also affords an excellent opportunity for children to discover and relate to the job roles which are associated with general well-being of the people in the community, and for identification with these roles.

MOTIVATING ACTIVITIES	RESOURCES AND MATERIALS
1. Children draw shadow silhouettes of each other. Mix them up and let others guess the identity. 2. Children write paragraphs about themselves and read to class as riddles. 3. Discuss the importance of both images, physical and mental and relate this to the actual body(physical) and the shadow it casts(social, mental). 4. Mount the silhouettes and display them.	Filmstrip projector White construction paper(12"x18") Black crayon (cut out and paste to wall)

BROAD OBJECTIVE: To help children understand more about themselves and their individual personalities.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. Who am I?	Show filmstrips in Getting to Know Me series.	Filmstrips:(In library) FA92 People are Like Rainbows FA93 A Boat Named George FA94 Listen, Jimmy FA95 Strike Three! You're Out
	Read health text-p.42-52 and discuss.	Health-Grade 5-Laidlaw Publishing Company
	Children make fact sheets about themselves and check anything they would like to change. a. physical traits b. abilities c. interests d. faults e. behavior f. manners, etc.	
	Children role play different life situations, with two groups for each situation. a. they have broken a neighbor's window while playing ball. What to do? b. parents are away and a neighbor child comes to visit. What to do? c. John sees his neighbor cheating on a test. What	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	d. your team has won a ball game but you know you did not play fairly. What to do?	
	Show film, Clown.	Film: Clown- Radford College 65509
2. Why am I different from other boys and girls?	Make bulletin board with pictures of children- Heredity & Environment + Experience = You (Children bring in pictures to illustrate these things)	
	Read Health 5(text)p.14,15	Health-Grade 5 Laidlaw Publishing Co.
	Write paragraphs telling what they like to do best with their families.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. How do I feel about things?	Show filmstrip, Our Feelings.	Filmstrip: Our Feelings (Jam Handy) in guidance office
	Children tell stories about things that have happened to them and their reactions. (Happy, sad, exciting, frightening)	
	Other children discuss these stories by suggesting alternative reactions.	
	Discuss emotions	
	Collect pictures of people showing different emotions, and label them.	Magazines
	Show filmstrip, Leak in the Dyke.	Filmstrip: Leak in the Dyke FL15(in library)

BROAD OBJECTIVE: To make children more aware of their bodies as physical structures which house their beings.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What is the structural make-up of my body?	Review, through discussion, the role of cells in the body.	
	Read in science text, Concepts in Science, p.191.	Text: Concepts in Science-5
	Scan pages 192-205 in text to determine, from content headings, the kinds of cells which make up the body.	Text: Concepts in Science-5
	Teacher show transparency, Body Cells 81811	Transparency: Body Cells 81811 (in library)
	Examine charts on The Human Body.	Nystrom Physiology and Hygiene Charts.
	Children list the body systems.	
	Discuss functions of the body systems.	
	Children study and discuss p.196-205 in text.	Text: Concepts in Science-5
	Start word list to be displayed in the room, and assign them for spelling mastery.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children make bulletin boards using anatomy charts.	Scientific Plastics, The Human Body
	Invite a doctor into the class to talk about the importance of the body parts working together.	Resource person - Doctor
	Display x-ray pictures and talk about how they are made.	X-ray pictures
	Children who have had x-rays made tell about their experiences.	
	Assign a small group to report on the x-ray machine, its inventor, and effectiveness.	Encyclopedias
	Divide class into groups to work on the various body systems and plan presentations to the entire class.	
	Establish guidelines for each presentation - a. name of body system b. good summary of the material in the science and health texts on the specific body system. c. duties of the system.	Science text: Concepts in Science-5(p.206-222) Health text: Health-5 (p.106-196) Science in Our World "Exploring Your Growth" (p.238-253) (in room library)

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	d. parts of body system e. charts, posters, and diagrams. f. models of body parts from clay when possible. g. dramatizations h. original ideas	
	Teacher set up display of all available material which are pertinent to the study.	Torso Visible man Skeleton models Skull collection
	Groups preview filmstrips on the body systems and present them to the class.	Filmstrips: FH15 The Skeletal System of the Human Body FH16 The Muscular System of the Human Body FH17 The Digestive System of the Human Body FH18 The Circulatory System of the Human Body FH20 The Nervous System of the Human Body
	Teacher show transparencies on the body systems for final discussion and fixation of concepts.	Transparencies: 818-1 The Digestive System 818-2 The Circulatory System 818-3 The Nervous System 818-4 The Skeletal System 818-5 The Respiratory System

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
2. What can I do to protect and care for my whole self?	List cooperatively the factors which contribute to good physical and mental health- a. food b. rest c. exercise d. clothing e. cleanliness f. medical care g. leisure time activities Divide into groups to make posters illustrating each of these. Each group plan and direct a class activity on its subject- a. plan menus b. direct phys ed., etc. Have a hobby show with the children exhibiting their hobbies supplemented by resource people and their hobbies. Invite guidance counselor into the class to talk to the children about maintaining good mental health.(Question and answer period) Read health text-p.36,37. Role play First Aid practices for simple accidents, using the health text(pages 35-36)	Rock collections Indian artifacts-Mr. Harris Stamp collections-Wayne Nester Dried flower placques-Ruth Duncan

BROAD OBJECTIVE: To help children discover the fact that many people contribute to the well-being of the mind and body.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. Who are the workers in the community who help me be a healthy, well-rounded person, and why do I need them?	Discuss home situations which have arisen recently which prompted a call for help from some community worker. Invite the city manager or city engineer into the classroom to tell about the duties of city workers as related to the health of the citizenry. Compile a list of all community agencies which contribute to the public welfare. Show film loops, City: Occupations Group projects- a. one group make a frieze showing Main Street and all workers who contribute to health of citizens. b. one group make a bulletin board showing workers(cut-out)who contribute to the health and well-being of the family with arrows pointing from pictures to the family in the center. Caption-City Workers and My Family	Mr. Kyle Roop, City Manager Mr. Ron Miller, City Engineer Film loops: City: Occupations Magazines

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children show and explain picture story study prints on Community Helpers and Urban Life.	Picture story study prints, Community Helpers, and Urban Life
	Make tagboard figures of workers for health and dress for the role.	Tagboard
	Children choose the occupation they would prefer and write stories telling why they think they are suited to it.	
	Pantomime the occupation and let children identify it.	

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Each child make a booklet entitled My and My Shadow and divide it into three sections; When I Was Little Now I'm a Fifth Grader When I Grow Up a. interview parents and others to get information for writing paragraphs about self in each section. b. bring pictures from home. c. make camera picture of class and mount. d. write self description. e. make collage page using cut-outs identified with self. f. add pages for the future section which illustrate the aspects the child would like in his self image of the future and his aspirations for the future(education, occupation, family life, etc.).	

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Popular Book of Science - Vol. 10
Science Library-The Body - Time-Life Books, N.Y., 1970
Young People's Science Encyclopedia - Vol. 19

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A Boat Named George - Cathedral Films
Listen, Jimmy - Cathedral Films
People are Like Rainbows - Cathedral Films
Strike Three! You're Out! - Cathedral Films
Circulatory Systems of the Human Body - Educational Activities
Digestive Systems of the Human Body - Educational Activities
Muscular Systems of the Human Body - Educational Activities
Nervous Systems of the Human Body - Educational Activities
Skeletal Systems of the Human Body - Educational Activities
Our Feelings - Jam Handy

4. Film:

Clown - 65509 - Radford College Film Library

5. Film Loop:

City: Occupations - Society for Visual Education

6. Transparencies:

Body Cells - Instructo Products
Circulatory System - Instructo Products
Digestive System - Instructo Products
Nervous System - Instructo Products
Respiratory System - Instructo Products
Skeletal System - Instructo Products

7. Charts:

Nystrom Physiology and Hygiene Charts - Denoyer-Geppert
Scientific Plastics, The Human Body - Weslab, Inc.

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: GETTING TO KNOW YOUR NEWSPAPER

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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INTRODUCTION TO: Getting To Know Your Newspaper

In grade five the language arts text includes a significant study of the importance of newspapers and the different sections related to newspapers. The grade five social studies text emphasizes the important role of the newspaper in early America, as well as the significance of a free press in our democratic society. These subject-related facts about newspapers will aid the work of this unit.

It is hoped that each student will grasp the importance of the development of the newspaper. It is also desired that this unit will reveal the many varied opportunities in the newspaper business. The variety and number of careers in newspapers will open a whole new dimension to the work of work.

MOTIVATING ACTIVITY	RESOURCES AND MATERIAL
What do you think of when I say "newspaper"?(news, communication, etc.) What is the definition of "newspaper"? Examine resource table of different newspapers and books about newspapers. Discuss area newspapers as to their names and delivery times. Ask each child to bring in one entire newspaper for this unit study.	Dictionary and/or encyclopedia

BROAD OBJECTIVE: To help students understand the historical development of writing and printing which led to the development of newspapers. Also, to help students understand how the newspaper is organized.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIALS
1. What is the history of writing and printing?	Let the children speculate as to why writing, and eventually printing, developed.	
	Read and discuss History of	Pamphlet: Newspaper In The Classroom
	Locate areas on world map where printing and writing developed(Egypt, China,etc.)	World map
	Show film on writing.	Film: "Writing Through the Ages".(1951- 11 min.)
	Discuss development of printing press and its significance.	
	Assign report on Johann Gutenberg and his contribution to printing.	Encyclopedia
	Examine several samples of writings.	Study prints 302 and 303 (Radford College)
	Take a field trip to a printing shop.	Field trip
	Read and discuss the history of newspapers.	Pamphlet: How To Get More Out of Newspapers.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIALS
	Discuss influence of a newspaper in colonial America.	
	Discuss importance of a "free press".	
	Read and discuss "freedom of press" rights in Constitution.	Copy of constitution and Bill of Rights.
	Speculate as to why people read newspapers.	
	Make a chart of different reasons why people read newspapers for bulletin board.	Posterboard, magic markers.
	Have each student write a paper on what he likes most and least in a newspaper and expalin why.	
2. What makes the news, and where are the most important news stories found in a newspaper?	Let children look for definition of news.	Dictionary
	Discuss types of news.	Language Arts text: Our Language Today (pp.101-102)
	Make a News Calendar showing each day of the week for the length of the unit. A different child will be chosen each day to bring an article to share with the class and pin to News Calendar.	Posterboard, magic markers, news articles.

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Read and discuss newspaper terms, specifically parts of the front page. (i.e. flag, caption, main headline, etc.)	Individual newspapers. Pamphlet: Your Newspaper
	Examine individual newspapers for examples of front page terms.	Individual newspapers.
	Make a bulletin board with front page of a newspaper. Point out different parts of front page.	
	Learn to spell newspaper terms, such as flag, headline, index, and by-line.	
	Read and discuss what makes a good headline.	Our Language Today (pp. 98-100)
	Teacher will read some short news stories, and students will create their own headlines.	Paper and pencil news stories
3. How is a good news	Read and discuss leads and types of news stories.	Our Language Today (pp. 102-104)
	Discuss six questions answered in good lead of news story.	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Each child will read news article from his own paper and identify the who, what, when, where, why, and how of the lead.	Individual newspapers
	Discuss slanted news.	Our Language Today (pp. 106-107)
	Students will discuss current events in their area and write their own news story with good headline and lead.	
	Volunteers will read their news stories before the class. Display news stories.	
4. How is the newspaper staff organized?	Ask the children to make a list of members of a newspaper staff on a sheet of paper. Write a composite of their answers on board.	
	Complete their list and discuss: 1. Editors/Feature Writers 2. Editor in Chief 3. Columnists 4. Reporters 5. Artists/Cartoonists 6. Lay-out Editor	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	7. Advertising writers: a. classified ads b. advertisements 8. Proofreaders	
	Divide class into eight groups to research one of the above. Report findings to the class.	Library: Card catalogue Encyclopedias Books
	Class will discuss different types of reporters and columnists found in area paper. (Sports, business, and society reporters or astrology columnists and such.)	Individual newspapers
	Book reports on members of a newspaper staff.	Books: This Is A Newspaper by L. H. Feigenbaum. Come To Work With Us On a Newspaper by Jean Wilkinson.
	A group of students will role play their interpretation of a reporter's job. Other characters may be editor, witnesses, police, etc.	
	Invite a reporter from a nearby newspaper to speak to the class concerning his job.	Resource person: A reporter

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Read and discuss mechanical staff of newspaper. (press-men, linotype operators,etc.)	Pamphlet: Your Newspaper
	Show film "The Colonial Printer".	Film #05012: "The Colonial Printer".
	Make a chart of steps a news story takes from the scene of the event to the street.	Posterboard, magic markers.
	Show transparencies of Gutenberg press and rotary press. Compare and contrast the two.	Transparencies: (See: The Newspaper In the Classroom)
	Show film "The Newspaper Story".	Film #37708: "The Newspaper Story".
	Provide an activity centered around printing, such as potato or ink prints.	Potatoes, tempera paints, and/or ink, manila paper.

BROAD OBJECTIVE: To help children develop understanding of the various sections of a newspaper and an appreciation for each of these areas.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are the different parts of a newspaper?	Children will make a list of different sections of a newspaper. A composite list will be written on the board. Discuss: 1. Front page 2. Society page 3. Entertainment/ book reviews 4. Editorial section 5. Advertising a. advertisements b. classified ads 6. Business 7. Sports 8. Comics Prepare a bulletin board showing various sections of newspaper, and what they contain. Make a mobile showing examples of different parts of newspaper with their respective identifying tags. Children will examine their own papers to find location and organization of newspaper sections.	String, magic markers, crayons, tagboard, articles from newspapers. Individual newspapers

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Read and discuss what is found on editorial page.	Pamphlet: Your Newspaper
	Examine editorial page of a local newspaper.	Individual newspapers
	Compare and contrast a well written and poorly written editorial.	
	Write editorials about recent events or articles.	
	Select a group of student to proofread articles.	
	Read and discuss letters to the editor.	Our Language Today (pp. 108-111)
	Children will write their own letters to the editor to disagree with a topic of their own choosing.	
	Display clippings of newspaper editorials and letters to the editor with those the children have created.	
2. How is the newspaper funded?	Ask children to explain how they pay for newspapers to be published.	
	Discuss price of a newspaper and compare with cost of producing one newspaper.	World Book Encyclopedia Volume 12

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Write a short paper on what advertisements you like and dislike. Explain why.	
	Read and discuss three types of advertising: 1. National 2. Retail 3. Classified ads	Pamphlet: Your Newspaper Our Language Today (pp. 113-114)
	Make collages of ads found in magazines.	Magazines, glue, tagboard.
	Discuss different commercial advertisement slogans and illustrations.	
	Create your own ads with slogans and illustrations. Display.	Tagboard, construction paper, glue, crayons.
	Create a large mural-type advertisement of coming event or assembly. Display.	Tempera paints and role of white paper.
	Read and discuss different types of want ads.	Our Language Today(p. 114)
	Examine classified ads of a local newspaper. Discuss how they are written.	Individual newspapers.
	Children will write own classified ads.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Write or create a large replica of a classified ad section and glue children's ads to complete the page. Display in room.	Posterboard, magic markers, glue.
	Examine newspapers to see cost of classified ad per word. Compute the cost of ads written by the children.	
3. What are the other parts of a newspaper and what is the role of each?	Discuss why some people specifically read the business section and others the sports page.	
	Discuss different types of people and their interests. Compare this with what they probably enjoy most in a newspaper(i.e. mother-society page; basketball player-sports page)	
	Examine comics in a local paper. Compare with Sunday edition of comics.	Individual newspapers.
	Divide class into groups to make lists of why people read comics. A speaker for each group will report ideas of groups.	
	Children will create their own individual comic strips.	White paper, pencils, crayons.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Display comic strips for children to read.	
	Make a diorama of favorite comic strip characters.	Cardboard boxes, paints, caryons, construction paper.
	Read and discuss book reviews found in local papers.	Individual newspapers. Our Language Today
	Discuss how book reviews are written and why they are found in newspapers.	
	Create a book jacket(illustrate cover) and write book review on inside flaps.	White paper, crayons, ink pens.
	Write a book review of a recently read library book.	
	Make a notebook of all the children's book reviews. Display in library for use by other classes.	Notebook or cover for book reviews, tape, white paper for pages.
	Compare and contrast book and movie reviews.	Individual newspapers
	Discuss importance of business, sports, and society pages. Who reads them? Are there special reporters for these areas?	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Learn basic points of how to read stock market reports.	
	Children will write papers to read before class on a favorite sports figure.	
	Invite a sports writer to speak before the class.	Resource person: A sports writer
	Make a wall hanging of a calendar of events for your school. Use society page calendar of events as an example and include PTA meetings, assemblies, and ball games. Display near school entrance.	Wooden strips for frame, heavy cardboard(white), magic markers.
	Select newspaper staff and create a class newspaper or newsheet. Allow entire class participation. Mimeograph for other classes. Advertise its arrival before circulation.	Paper, mimeograph paper, pens, etc.
	Take a field trip to a local newspaper to view production of a newspaper.	Field trip to local newspaper.

BROAD OBJECTIVE: To help students discover the numerous but varied jobs available in a newspaper business. 14

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What career opportunities are available in the newspaper world?	Review list of members of newspaper staff.	
	Panel discussion of advantages and disadvantages of being a reporter.	
	Students will research the different jobs of staff members and report findings to the class.	Library: Card catalogue Encyclopedias Books
	Invite a member of local newspaper staff to speak on careers.	Resource person
	Make a movie of steps of a news story from even to newspaper on the street. The movie will show different jobs in order of occurrence.	Cardboard boxes, rolls of paper, paper sheets, crayons, wooden dowells, and glue.
	Research the possible incomes and education necessary for different jobs on a news staff. Report to class.	Library
	Illustrate the job you would most prefer in the newspaper business.	White paper, colored pencils, crayons.

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Circulate a class newspaper or news sheet to other classes. Invite parents to view a display of papers, drawings, charts, movie, dioramas, and bulletin boards, and other activities of the unit. Show filmstrip, "The Neighborhood Newspaper Story".	Filmstrip: "The Neighborhood Newspaper Story"

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2. Encyclopedias:

World Book - Vol. 12
Compton's Encyclopedia
Encyclopedia Britannica - Vol. 16
Britannica Junior Encyclopedia - Vol. 11

3. Pamphlets:

Your Newspaper(available free upon request fron Roanoke Times)
The Newspaper In The Classroom(also free from Roanoke Times)
How To Get More Out of Newspapers(Roanoke Times)

4. Filmstrips:

"The Neighborhood Newspaper Story"-Eye Gate House, Inc.

5. Films:

"Newspaper Story" - #37708 (Radford)
"Colonial Printer" - #05012 (Radford)
"Writing Through the Ages" - (Radford College)

6. Study Prints:

Caxton and Printing(#302-Radford College)
Writing Through the Ages(#303-Radford College)

7. Transparencies:

Gutenberg Press(available from Roanoke Times)
Rotary Press(available from Roanoke Times-pattern only for both)

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: FORESTRY - THE TREE AND I

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

THE CAREER EDUCATION PROGRAM
THE RADFORD CITY SCHOOLS
1612 WADSWORTH STREET
RADFORD, VIRGINIA 24141
PHONE: 1-703-639-6673

INTRODUCTION:

Though a great deal has been said and done about the ecological and conservational aspect of forestry, children need to know more about the part forests play in their present way of life. They need also to become cognizant of the many careers which are related directly to forestry. Children living in mountainous areas such as ours should be particularly interested in this as a resource for future decision making.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
MOTIVATING ACTIVITY	Invite forester to come into the classroom. or Tour school to see uses of wood. or Children bring in leaf collection to be used in art project (shading leaves with crayon or making rubbings with leaves). Teacher make bulletin board - The Tree and I.	Jim Clarke, State Forestry Service (Christiansburg) Variety of leaves. Crayons Paper

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How do forests contribute materially to our way of life?	Bring in pictures of things made of wood or cut out pictures in class.	Magazines
	Children work in groups to group these pictures into categories. (houses, furniture, transportation, recreation, etc.)	
	Make a frieze of the above with divisions.	Long strip of wrapping paper Pictures Scissors Glue Construction paper
	Assign individual reports on the making of paper from wood pulp.	Encyclopedias Pamphlets
	Use encyclopedias to find by-products of forests - tar, rubber, etc.	
	See filmstrip.	CFA 180 A Trip to a Lumber Mill CE-CT-A63 A Lumber Mill
	Visit lumber mill.	Sales Lumber Yard (Bethel Road)

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
2. How do forests help us in ways other than by supplying other commodities?	Children write V.P.I. for printed matter on the subject. Write U.S. Forester in Roanoke for material. Invite Mr. Jack Clark into classroom to talk about forests and conservation. List questions to be asked of visitor. Short word list using such words as: conservation erosion forestry specialist protection (children help make the list) Make large chart of words and hang in room. (children do this) Learn poem (song) "Trees" by Joyce Kilmer. Invite scout leader to talk about safety and conservation in the forest.	Mr. Jack Clark Radford College Poster board Magic marker Childcraft Scout leader.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. What are the outstanding forest areas in the U.S.?	Locate forest areas in U.S. on U.S. map. Read and discuss pamphlet "Let's Learn About the Forest". Group work: a. Draw U.S. map and locate forests on it. b. Report on Redwood Forest in California. c. Report on National Forests. d. Report on Great Smokies. Make sand table forest.	Social Studies book Living in the Americas. Pamphlet, "Let's Learn About the Forest" Book, Living in the Americas Manilla Paper Crayon Encyclopedias Pamphlets on Smokies (children bring these in) Pasteboard box Sand Tree Branches
4. How are different kinds of wood suited to different functions?	Display pictures of different kinds of trees. Press leaves and draw pictures for booklet identifying leaves. Children make chart showing samples of kinds of wood. Invite cabinet maker and/or carpenter (parent) into classroom to talk about wood samples.	Board over black board.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Make hot plate mats or wall plaques out of wood scraps. a. Cut out b. Smooth with sandpaper c. Paint d. Shellac Invite local artist into class to teach children how to draw trees.	
5. How is our federal government involved in the forestry industry? Why?	Children write letters asking for information and free materials to: a. Dept. of Interior b. U.S. Forestry Service Write paragraphs about the dangers of cutting trees without restrictions. Children describe national forests they have visited and tell about regulations governing their use. Role play two groups of campers: a. Careless campers b. Careful campers	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
6. What is the need for people in the forestry service?	Find names of careers related to forestry.	
	a. Use free printed matter.	Pamphlets and booklets in free material.
	b. Read Occupational Briefs.	Occupational Briefs
	c. Invite U.S. Forester into classroom.	Forest Technician Forester
	d. Listen to cassette, "I Want to be a Forester"	CE-CTA 132
7. What are the jobs related to the forestry service, and what are the good and bad features of each?	View filmstrip.	Filmstrip: "I Want to be a Forester"
	Study handbook.	Occupational Outlook Handbook - 1972-73 Edition
	Children read and report on Career Encyclopedia.	Encyclopedia of Careers Vol. II.
	Children interview Guidance Counselor for information on this question.	
	Invite Mr. McLean, Game Warden, Pulaski.	
	Exceptional readers read books about jobs in forestry, and report to class.	Books in H. S. Library. Your Future in Forestry. D. H. Hanaburgh Forest Ranger. John L. Floherty

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Children write personality sketches of themselves and tell why they think they will or will nor fit into a forestry career.	
CULMINATING ACTIVITY	Write garden club, and ask for assistance in securing and planting seedlings on the schoolground or at another locality. Plant the seedlings. Design plaque to be placed at site of planting.	

BOOKS IN KUHN BARNETT LIBRARY:

Baker, Eugene. I Want to be a Forester.

Bough, Glenn O. Lookout for the Forest.

Buckheimer, Naomi. I Know A Ranger.

Coombs, Charles I. High Timber.

Farb, Peter. The Forest.

Flaherty, John. Forest Ranger.

Frome, Michael. Whose Woods These Are.

Hurd, Alma. The Friendly Forests.

Hurd, Edith. This is the Forest.

Hyde, Wayne. What Does A Forest Ranger Do.

Selsam, Millicent. Birth of a Forest.

Zim, Herbert S. Trees.

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: MERCHANDISING - FROM FACTORY TO ME

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

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INTRODUCTION TO: MERCHANDISING - FROM FACTORY TO ME

One phase of Social Science on fifth grade level concerns the choices people have in making purchases of desired goods. Since children of this age are becoming more independent in their buying practices and have more money to spend than previous generaltions, emphasis on this part of their school experience should be interesting as well as worthwhile.

OBJECTIVES:

1. To help children understand what is involved in production of goods for retail sale.
2. To acquaint children with the transportation processes involved in getting products from
3. To help children recognize the role of supply and demand of goods in the production and distribution of same.
4. To help children determine what is involved in determining the prices paid for what they buy in stores.
5. To develop in children an understanding in a broad sense of kinds of jobs involved and skills needed for satisfactory fulfillment of these jobs that give them such economic choices.

MOTIVATING ACTIVITIES

1. Let children read and report on their reading of newspaper advertisments of goods for sale (any kind).
2. Children make a poster of clusters of items they like to buy.
3. Children determine relationship between items 1 and 2.
4. Class relates their desires to their needs in goods purchased, writes paragraphs of explanation.

BROAD OBJECTIVE: To help children understand what is involved in the production of goods for retail sale.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. Where does the merchandise in our stores come from?	Have children list broad classifications of kinds of goods they can buy (i.e. food, clothing, furniture, etc.)	Chalkboard, chalk, paper and pencil.
	Show filmstrip.	CF-A-204 A Shopping Center, and record - CE-CT-A80.
	Have children discuss and name sources of goods (farm, factory, etc.) Use inquiry method of information seeking.	Chalkboard & chalk.
	Have children make fact sheets and include resume of findings in above discussions. a. Sources of supply. b. Types of manufacturers. c. Means & methods. (in broad terms)	Library references.
2. What kinds of jobs are required to produce and distribute these goods?	Children list any kind of work they think would apply to producing and distributing goods. Indicate which jobs in the list are sales jobs?	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. Why are certain goods produced? What determines what shall be produced and marketed?	Locate manufacturing centers in U. S., and in Virginia. Make pictorial map of same. Discuss briefly with children why these cities bacame manufacturing centers. Initiate listing of reasons why products are made available for public use. a. profit motive b. need c. satisfaction of desires d. etc. Have two students read and report on two books: one about Food, and the other, clothes. Make bulletin board illustrating the "From Factory to Me" theme. Show filmstrips.	Old Social Studies Textbook, Living in the Americas. Construction paper, felt pens. Chalkboard & chalk. Concepts and Values, p. 169 - 176, 198 Nothing to Eat but Food. Frank Jupo, (Aladdin, 1954) Nothing to Wear but Clothes. Frank Jupo, (Aladdin, 1953) Construction paper Magazines to be cut apart for pictures. Colored string or yarn. Pins or staples. CF-A229 Americans at Work (has captions) CF-A201 A Manufacturing Area and cassette CF-A-201

BROAD OBJECTIVE: To acquaint children with the transportation processes involved in getting products fron the factory to the store and thence to the consumer.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are different ways by which products may be transported from one area to another?	Initiate discussion by inquiry method of the main means of transporting goods in U. S. a. trucks b. railroads c. airplanes d. ships e. barges	Library references. Old Social Studies textbook, Living in the Americas.
	Assign groups to prepare posters illustrating each means of transportation.	Poster board, pens, pencils, magazines.
	Show filmstrips.	CF-A141 Modern Land Transportation (with captions)
	Play records.	CF-A75 Textiles: How They Get to Where You Shop & record C-Rec. A-49 Record C-Rec. A-51 Transportation.
	Invite long=distance Truck Driver to talk to class.	
	Write thank-you note to Truck Driver friend for coming to class.	Discovery in English, p. 254

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
2. Is there a profit involved by each business man or company as the products progress from factory to me? Name some jobs involved. Which jobs appeal to you (student).	Read textbook and related materials. Ask for oral reports and discussions on material read. Trace one commodity from point of manufacturing to consumer. Show film on transportation processes. (optional)	Concepts and Values, p. 168-176. Library references. Film (to be selected).

BROAD OBJECTIVE: To help children recognize the role of supply and demand of goods in the production and distribution of same.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What is meant by supply and demand? Plant idea to be pursued as textbook material is read.	Read textbook material on subject. (Individual silent reading assignment).	Concepts and Values, pages 169-178, for one assignment.
	Discuss text material on pages indicated.	
	Make graphs on costs involved in production and distribution. Figure percentages of interest costs on bank loans.	Graph paper, rulers. Mathematics 5, pages 266-277. Graphs study Fraction study, p.136 review
	Make word list of vocabulary involved in discussion of text material.	Chalkboard, chalk. Concepts and Values, p. 176.
	Read textbook material continuing subject matter then have group discussions.	Concepts and Values, p. 178-187, to complete assignment.
	Show filmstrip.	Filmstrip (to be selected)
2. What effect does the role of supply and demand have on sales jobs?	Have children engage in group discussions to clarify terms and ideas.	
	Report to class orally on same.	
	Invite Store Owner or Manager to talk about guide lines for employing salesmen.	

BROAD OBJECTIVE: To help children determine what is involved in determining the prices paid for what they buy in the stores.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What determines the prices you pay for what you buy?	Use inquiry method of open discussion for answers. Classify answers that children give (include supply and demand concept). Assign textbook material pages for individual reading and reporting. List factors relating to prices involved in these transactions. a. Installment buying b. Banking practices c. Charge accounts d. Desires (culture) e. Weather effects & season on perishable goods. Use study prints. Use filmstrips and records.	 Concepts and Values, p. 188-197. C-Sp-29 Learning About Money. CF-C2, The Nature of Money and record C-Rec.-C2 CF-C-3, Services of a Bank and record C-Rec.-C-3.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Plan field trip to Credit Union, bank, or "money institution".	
2. How do your values help to shape your choice of what you buy? Define value.	Children make individual lists of material things they value most highly.	
	Use art lesson to demonstrate high-value things.	
	Read assigned textbook pages.	Concepts and Values, p. 200 & 291.
	Have class discussion after reading of textbook pages 200-201 (& having finished entire unit on Economic Choices); class relates their list of highly valued things or goods with lists of their highly needed items to determine stable ideas of value.	
3. How can you connect prices, values, and sales jobs?	Class has open discussion, and draws conclusions.	
	Make lists of items included in conclusions on chalkboard.	Chalkboard & chalk.
	Play cassette on Workers Who Sell.	CE-CT-A90 Workers Who Sell.

BROAD OBJECTIVE: To develop in children an understanding in a broad sense of the kinds of jobs involved and skills needed for satisfactory fulfillment of these jobs that give them such economic choices.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. After goods are produced in factories, what are different kinds of jobs that get merchandise to us as concumers? Focus attention on sales work.	Children visit library and read from selected books on reserve.	Library references (to be selected at individual schools)
	Engage class in open discussion listing all jobs involved in distribution of goods.	
	Use newspaper classified ad sections to illustrate kinds of jobs involved in selling.	Newspapers, state & local.
	Display clippings from newspapers for sales jobs.	Newspaper clippings, poster or tag board, crayons for decoration.
	Have children write ads and put on bulletin board for display.	
	Have class review lists of jobs and focus attention on the importance of sales work, listing kinds of salesmen they can name.	
	Show filmstrips illustrating sales jobs.	CF-A123 My Dad Works In A Supermarket. CF-A121 My Dad Works In A Shoe Store

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Play cassette tape to illustrate supermarket jobs.	CE-CT-A121 Getting to Know the Supermarket
	Plan a field trip to a grocery supermarket, or other appropriate retail outlets.	
2. How many new sales jobs can you name after the studies and trips that have been made?	Revise list of kinds of sales jobs. a. stores b. door-to-door c. auto d. insurance e. etc.	
3. What are the duties of sales people?	Divide class into four or five groups to do research into one of the sales jobs listed above.	Library Card catalogue Books
	Report findings orally to class.	
	Show films or filmstrips on subject of sales.	Film - to be selected - book not available. Filmstrip CE-A228 Your Stores
	Invite sales person to visit class and explain his work. (Parent if possible) Have question and answer period.	
	Write individual reports on findings. Write thank-you note to sales person.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. What skills or educational requirements are needed for sales jobs that get merchandise from factory to me?	Determine personality characteristics needed for good salesmen.	Library references. (To be selected at individual school)
	Have children interview sales people. Report findings to class and on paper. Study and discuss proper procedures.	Library references.
	Have children investigate ads in local papers for sales jobs which might appeal to them.	Newspapers.
	Assign each child to write a letter answering a newspaper ad for a job that appeals to him (real or imaginary).	Discovery in English, letter writing, p. 265-267.
	Review vocational skills and/or educational requirements. Emphasize varied educational requirements from below high school completion to professionally trained people.	Library references.
	Make collages illustrating kinds of jobs, and their own particular interests.	Magazines.
	Have children learn to count money and change, (if not known), to write cash receipts, to make price tags, to prepare inventories, etc.	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
4. What are the advantages and disadvantages of sales work?	Make composite lists as class activity.	Library references.
CULMINATING ACTIVITY	Make bulletin board. Plan and present skit. Establish small groups in the class who will have the broad assignment of planning, preparation, and demonstration of a sales situation, suggestions given below. Each group is given designated space. Plans are to be approved by teacher. 1. Appliance store 2. Food market 3. Book store 4. Sporting goods store 5. Plant nursery 6. Pet store (stuffed or live) 7. Furniture store 8. Car dealer 9. Drug store (Apathocary)	

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: UTILIZATION OF RESOURCES
"YOU CAN'T FOOL MOTHER NATURE"

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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OBJECTIVES: UTILIZATION OF RESOURCES - "You Can't Fool Mother Nature'

I. To help children understand that people adapt to and change their environment through the utilization of resources.

II. To help the children develop an awareness and appreciation of the diversity of resources which they take for granted in their day-to-day life.

III. To help the student gain an understanding of the scarcity of resources and the need for sharing resources through trade.

IV. To help children perceive man's ability to use chemical technology to increase his resources and the variety of careers available.

V. To help the children gain an appreciation for our resources and that wise resource use depends on planning and technology.

INTRODUCTION:

This unit on the utilization of resources was written for the fifth grade class. It includes a study of both natural resources obtained from our environment and synthetic resources that we have produced by necessity. The students will be exposed to a wide variety of occupations that are related to the production of or use of these resources.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
Motivating Activities	1. Play game 20 questions. Headings are Animal, Vegetable and Mineral. All of these are resources. 2. Have a brainstorming session with the class after defining the word resources. Have children snap out a quick response of some resource. 3. Start a vocabulary list with the word resources at the top. 4. Have music teacher introduce songs that involve our resources. Learn others during the unit.	16 Tons Big John

BROAD OBJECTIVE: To help children understand that people adapt to and change their environment through the utilization of resources.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How do our environments change due to geography?	1. Show filmstrips Geography, Climate and Natural Resources. Defining the Rocky Mountain Region.	Filmstrips: Geography, Climate and Natural Resources (The Rocky Mountain States) (The Southwestern States)
	2. Divide children into groups and make murals depicting scenes from different geographical areas. a. Jungle Lands b. Mountainous Land c. Desert Lands d. Cold Lands	Encyclopedias Library Books
	3. Have children interview parents to find out information on different areas they have lived in.	
	4. Have a map of the U. S. displayed, pinpoint place of birth of each student.	Map of U. S. Varied colored pins Yarn
	5. Have resource person (preferably parent) visit classroom and discuss environment of some area in which they have lived.	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	6. Write thank-you note to resource person.	
	7. Divide children into groups and work with study prints.	Interaction of Man and his Resources.
2. How do the farmers in a mountainous region change their natural environment?	1. Read Text pp. 121-129 A Mountain Farm and discuss material.	The Social Sciences pp. 121-129
	2. Review any information pertaining to mountain farming from filmstrip on Rocky Mountain States.	
	3. Let children choose one of the following activities:	
	a. Do the investigation into making an elevation map on page 124 in our Social Studies.	The Social Sciences p. 124
	b. Make a salt-flour map of a mountainous region. Try for a variety of places - California, Va., etc.	Salt-flour recipe.
	c. Make a physical map showing the elevation of some mountainous state.	Duplicated maps of Virginia, California, etc.

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	4. Start a chart to be followed throughout the unit with the following headings: a. Crop b. Climate (or growing season) c. Soil d. Water	Large chart 24 x 36" Magic markers
	5. Visit the Claytor Lake or Little River Dam.	
	6. Show filmstrip A Trip To A Sewage Treatment Plant	Filmstrip projector.
3. What are the resources of the central valley of California?	1. Read textbook pp. 131-140 A Dry Region and discuss content.	The Social Sciences pp. 131-141
	2. In Science class discuss the conservation of water and land both in a mountainous region and a dry region. Make a cumulative list and record.	
	3. Have children draw a picture showing some form of conservation for bulletin board: a. Dam	Paper

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	b. Terracing c. Irrigation d. Levees e. Canals 4. Visit the Water Purification Plant. 5. Listen to record and filmstrip Trip to an Electrical Power Plant. 6. Write a thank-you letter to the Water Purification Plant.	A Trip to an Electrical Power Plant.

BROAD OBJECTIVE: To help the children develop an awareness of the diversity of resources which they take for granted in their day-to-day life.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are some of our resources?	1. Play the Game of Interdependence. Each group choose an item in the room secretly and find out: raw material, where it came from, where it was manufactured and how materials were transported. Put these on clue cards and display on bulletin board.	The Social Science Teachers Edition, p.161
	2. Have a large map of the United States and display resources (using symbols) as we discuss them throughout the unit.	United States map.
	3. Discuss and make a cooperative list of resources.	Large chart.
	4. Have each child take one resource and prepare a report and chart for class. Presentation including: a. products made from resource b. put their resource on U. S. map.	Encyclopedias

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	5. Do creative writing "If I were on a desert island without a match, what would I do to solve my problem?"	
	6. Have children work with study prints Interaction of Man and His Environment.	Interaction of Man and His Resources.
	7. See filmstrip.	The South, Resources and Manufacturing Industries. Rand McNally
		Utilizing Our Resources.
		Adding to Our Resources.
		Our Human Resources.
		Ill Fares the Land.

BROAD OBJECTIVE: To help the children gain an understanding of the scarcity of resources and the need for sharing resources through trade.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are the resources necessary in steelmaking?	1. Read textbook. pp. 143-149. 2. Show filmstrips and play cassettes: A Trip to a Coal Mine. Blast Furnace, The Story of Steel. A Trip to a Steel Mill 3. In Science class, study the resources that are necessary in steelmaking; iron ore, coking coal, and limestone. 4. Take a field trip to the limestone quarry. 5. Have a resource person from Lynchburg Foundry to give information on: a. raw materials used b. variety of products c. transportation necessary to obtain materials and to distribute products. d. Occupational choices.	The Social Sciences pp. 143-149.

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	6. Write a thank-you letter to the limestone quarry and resource person from Lynchburg Foundry.	
2. How do we share resources through trading?	1. Role play situations showing the necessity of sharing and trading of resources.	See The Social Sciences Teacher's Edition 167
	2. Do research on resources imported and exported by the United States and write up this information for presentation to class.	
	3. Working in pairs, have children make lists of foods, tools and clothing that are grown or manufactured in other regions.	
	4. Divide the children into groups and work with the study prints, Interaction of Man and His Resources.	Study print: Interaction of Man and His Resources.
	5. Do research into the effects that the need of a certain resource affects our economy. (i.e. selling grain to Russia)	

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CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. What are some occupations associated with steel? making skipmen stove tenders blowers keepers slaggers melter ladle cranemen steel pourer ingot stripper heater soaking pit cranemen roller shearman	1. Study occupational briefs. 2. Have children label the occupations and tell about the careers from the beginning to the end in the steelmaking processes by role-playing.	

BROAD OBJECTIVE: To help children perceive man's ability to use chemical technology to increase his resources and the variety of careers available in this field.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. How did the shortage of rubber during World War II create a need to find a new resource?	1. Read textbook pp. 150-151 Creating New Resources. 2. In groups of two or three, the children can identify a problem of shortage and come up with a solution. 3. Have volunteers find information and inform class on:a.natural rubber, b. synthetic rubber. 4. See filmstrip.	The Social Sciences. The Story of Rubber Encyclopedia Britannica
2. What are the careers related to the field of rubber?	1. Study occupational briefs. 2. Make list of occupations.	
3. What are some other synthetic materials? polymers - nylon orlon acrilan dynel plastics synthetic leather	1. Read text Chemicals for Modern Industries p. 151 2. Have each child make list of synthetic products found in their own home. 3. Have children research material on synthetic products: a. the history of b. raw material,	The Social Sciences p.151

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	c. careers available.	
	4. Make a list of synthetic products.	Large sheet of tagboard. Magic markers.
	5. Write a crettive story: What would our life be like if suddenly all of the plastic simply disappeared?	
	6. Take field trip to Radva Plastic.	
	7. Have a debate - What consequences do synthetic products have on other industries?	
4. What are the careers that are available in synthetic materials?	1. Make a list of occupations after Radva Plastics trip.	
	2. Study occupational briefs.	
5. How is petroleum refined and what does technology produce with the wasted?	1. Show cassette and filmstrip: A Trip to an Oil Well.	Cassette and filmstrip: A Trip to an Oil Well.
	2. Bring in newspaper clippings on the energy crisis and display on bulletin board.	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	3. Have group divided and do research and take notes on the petroleum industry: a. 1st group-refining oil. b. waste products petro-chemicals. c. pollution problems. d. energy crisis.	Pamphlets on petroleum.
	4. Have a small group of students place symbols for petroleum on United States map.	
	5. Have class debate some problem of the petroleum industry. Would man be better off without industries which cause pollution?	
	6. Read text p. 152-153	The Social Sciences
	7. Have filmstrip Oil Wealth from the Ground for small group viewing.	Oil Wealth from the Ground.
6. What are the careers available in petroleum products?	1. Have groups review careers observed in filmstrip. 2. Study occupational briefs. 3. In Science class discuss the role the geologist plays in locating oil fields.	

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
What are some other ways that man is using his chemical technology to increase his resources? -oceanography -nuclear energy -thermonuclear energy -solar energy	1. Read text pp. 155-159 2. Do experiment of distillation to show one method of desalting. 3. Have series on Oceanography in room for small group viewing. 4. Have children do research on desalting water and methods of collecting salt. 5. Have children make a bulletin board of "Food Favorites" and "Food Horrors" by compiling list of child's favorite food and a food he can't stand.	The Social Sciences pp. 155-159. Filmstrip and records Oceanography Singer
What are the careers available in this field? -scientist - fishermen -sailors -merchant marines -off shore oil-drilling - ship-builders -divers -salvage workers	6. Have class view filmstrip. 7. Show filmstrip on A Career in Oceanography. 8. Discuss work roles of people making a living from the ocean.	A Trip To A Nuclear Waste A Career in Oceanography.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
Culminating Activities	1. Read text pp. 161-163 Focus on the concept, then discuss. 2. Have discussion 'How do we recycle waste products'. -trash and garbage -glass -automobiles -paper -water 3. Have a general review of material covered, display outstanding work, snap-shots taken during unit. 4. Write a story, 'Out of all the different occupations we studied in this unit, I would like to be a _____. Why?	The Social Sciences.

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: RECREATION-WORK WHILE YOU PLAY

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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INTRODUCTION TO: RECREATION-WORK WHILE YOU PLAY

This unit on careers in recreation is designed for the fifth grade class. It is hoped that the children will become aware of the need for a community recreation program as a part of everday living and of the ways in which it contributes to a well-rounded life. It is necessary, therefore, that children know about jobs related to recreation, and to gain an appreciation for this world of work.

OBJECTIVES

1. To help children understand the need for recreation as a part of wholesome living.
2. To help children develop and strengthen the concept that some play is necessary in a well-rounded life.
3. To point out to children the economic involvements in setting up a recreation program.
4. To guide children in developing an understanding of the numerous careers in recreation, and to realize how individual talents and interests and training may lead to procurement of jobs in this field.
5. To help children become aware of the advantages and disadvantages in recreation work.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
Motivating Activity	Invite Recreation Staff members to class to talk with children about their work in the Radford Recreation Department.	Mr. and Mrs. Joe Hodge
1. How does the recreation program in our city contribute to our way of life?	1. Make a cooperative list of facilities in our city which come under the direction of the Recreation Department. 2. Make a chart "Fun in Our Town" using the above list. 3. Make a frieze on the blackboard or a long sheet of paper showing recreation areas in our town. 4. Children interview parents to determine the ways in which they use the recreation program, and report to the class. 5. Discuss with the class types of recreational activities they have participated in during the summer. Present to class. 6. Draw pictures showing the above activities.	Tagboard Magic Markers Paper Colored Chalk Parents Manilla Paper Crayons

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIALS
	Teacher set up a reading table of books and pamphlets on recreation activities. 8. Begin a collection of articles made by the children in any area of recreation activities.	
2. What are the recreational needs of our city?	1. Use chart of recreation facilities in our city as a guide and list additional civic needs such as: a. public swimming pool b. additional library facilities, etc. 2. Use city map to locate recreation areas. 3. Choose one item from #1 and draw pictures showing the civic needs. 4. Invite a member of Recreation Department to classroom to discuss recreation needs, and, what plans, if any, have been made as to fulfilling the same. 5. Write Thank-You-Notes to Mr. Bisset.	Map of City of Radford. Paper Crayons Mr. Dave Bisset

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
3. What does the field of recreation involve?	1. Make an individual list of all areas in which recreation is involved, such as: a. City Recreation Dept. b. Boy Scouts, Girl Scouts, Y.M.C.A., Kiwanis Club, etc.	
	2. Compile a composite list of the above.	Tagboard Magic Markers
	3. Collect pictures and begin a bulletin board showing the areas of involvement.	Magazines Scissors Glue
	4. Role play areas of involved activities.	
	5. Children bring in newspaper clippings about recreation activities in our city and report to class.	Newspaper - Radford News Journal
	6. Read from material on reading table and make a written report to be read to the class.	
	7. Children get city budget and enlarge the Recreation Department Budget and put on wall.	Budget, City of Radford
	8. Children research and report to class as to how the city program is funded.	
	9. Plan activity for making: a. bean bags b. checkerboard, etc.	Beans Material (cloth) scissors, needles, etc.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
4. What are the careers that are available in the field of recreation?	1. Compile a list of the various jobs in the field of recreation. 2. Assign these careers to groups to prepare oral reports to be given to class. 3. Use reading table to research careers and discuss. 4. Make collages showing recreation careers. 5. Take a field trip to St. Albans to observe recreation facilities thers. 6. Show filmstrip 7. Plan and begin a class booklet on careers in recreation. 8. See filmstrip on careers.	Tagboard Magazines Scissors Glue St. Albans Filmstrip: Recreation Park and Playground Workers. CF=A155 The Library and the Librarian CF-A-52
5. What qualifications are necessary for an individual to work in recreation?	1. Discuss with the class, and make a list of qualities necessary for an individual to have in this field, such as: a. Sincere interest in people. b. Leadership ability, etc.	

CONTINUED

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	2. Use comic books to read and role play careers.	C286-Comic Books "Popeye and Hospitality and Recreation Careers" Tagboard Magic Marker
	3. Make a chart listing qualifications.	
	4. Study and report to class from occupational briefs about recreation-related careers and qualifications.	C98-Occupational Briefs
	5. Bring in a staff member from Recreation Department to discuss the advantages and disadvantages of work in the field of recreation.	Recreation Department Staff Member.
	6. Children analyze their own personal traits as to ability, etc.	
	7. Children write articles about themselves as to their talents and interests in the field of recreation. Read these to class.	
Culminating Activity	Have a hobby show.	

C A R E E R E D U C A T I O N P R O G R A M

R A D F O R D C I T Y S C H O O L S

UNIT TITLE: ROCKS AND MINERALS

TREASURES BENEATH YOUR FEET

APPROXIMATE GRADE LEVEL: GRADE 5

PROJECT SITE: RADFORD CITY SCHOOLS

PROJECT DIRECTOR: DR. JAMES E. RUTROUGH, SUPERINTENDENT

PROJECT COORDINATOR: RANDY WRIGHT

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INTRODUCTION TO: Rocks and Minerals
Treasures Beneath Your Feet

Much has been said in recent years about conservation and ecology and this has resulted in increased interest, on the part of children, in our natural resources and their importance to our economic and social life.

The study of rocks alone is intriguing to fifth graders and leads naturally into the study of other underground treasures and oddities.

It is desirable that after working on this project the students will experience an increased awareness of the value of underground treasures, as well as an understanding of the opportunities they may open up to them for employment in their adult lives.

MOTIVATING ACTIVITIES	RESOURCES AND MATERIAL
Discuss bulletin board, prepared by teacher, showing volcanoes and caverns. (a) Stress volcanoes as a source of rock. (b) Point out importance of heat and pressure to all rock formations.	

BROAD OBJECTIVE: To help students understand the value of the ingredients in the crust of our earth as part of our life style; to guide them in understanding that this part of our natural resources is vital in conservation efforts, and that many jobs are created because of the presence of these treasures and are essential to gaining maximum usage from them. 2

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
1. What are the treasures inside the earth?	Read, study and discuss text p. 35-45 p. 342-358	Text: Concepts in Science V
	Learn names of three rock groups and some kinds of rock in each group.	
	Learn spelling of the above.	
	On science table display, for handling and examination, commercial rock collections.	Rock collections from library
	Children make individual rock collections, identify, and label.	Rocks Boxes Paper labels
	Prepare reading table of books about rocks and minerals for free reading and examination by students.	Books from library
	Perform experiment to make crystals.	Text: Concepts in Science, p. 38
	Test limestone and marble to establish similarity.	Use vinegar on each to make carbon dioxide, proving presence of calcium carbonate.

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	View filmstrips.	Filmstrips: Rocks & Minerals The Rock Families (Soc. for Visual Ed.)
	Invite geologist to give demonstration on collecting and identifying rocks.	Dr. Benson
	Compile a list of minerals and relate to geographical areas.	Encyclopedias
	Read and report on encyclopedia accounts of precious stones.	Encyclopedias
	Learn to spell most familiar metals, minerals, and rocks.	
2. How do these treasures affect our way of life?	Make charts of pictures showing different rocks, minerals, and precious stones.	Tag board Magazines Glue Rulers Magic markers
	Tour school plant to find any apparent uses of rocks and minerals.	
	Report on kinds of coal and relate to geographical areas.	Encyclopedias Maps
	Report on different methods of mining coal - strip shaft slope	Encyclopedias

CONTENT QUESTIONS	TECHNIQUES AND ACTIVITIES	RESOURCES AND MATERIAL
	Discuss current problems caused by these methods and their relation to conservation.	
	Write letters to Bureau of Mines for information regarding safety regulations in mines.	
3. What careers are related to rocks and minerals?	Working in teams, study occupational briefs and report to class.	S.R.A. Occupational Briefs
	Locate on U.S. map industrial areas where coal is an important factor in production.	U.S. map
	Visit Lynchburg Foundry.	
	Make cut-out frieze showing job roles described in earlier reports.	Long sheets of wrapping paper. Construction paper Scissors Glue Crayons
	Role play jobs for class to guess identity of job.	

CULMINATING ACTIVITY:

CULMINATING ACTIVITY	RESOURCES AND MATERIAL
Field Trip: Visit the Radford Limestone Quarry to find answers to the previously established questions: 1. How is the limestone quarried? 2. What proce-ses are used in the plant after quarrying? 3. What are the different types of jobs seen? 4. What are good and bad features of the jobs?	

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